Reproductive Facts

Patient fact sheet developed by the
American Society for Reproductive Medicine

Intrauterine Insemination (IUI)

When a female patient gets pregnant, sperm travel from the vagina through the ***cervix*** (narrow, lower part of the womb), into the ***uterus*** (womb), and up into one of the fallopian tubes. If sperm arrive in a tube soon after the release of the egg from the ovary (ovulation), the sperm and egg can meet and unite (fertilization) in the tube.

The cervix naturally limits the number of sperm that enter the uterus. This means that only a small percentage of the sperm in a single ejaculation actually make their way into the fallopian tubes. Intrauterine insemination (IUI) is a procedure used to improve a female patient's chance of getting pregnant.

In IUI, sperm is placed past the cervix and in a female patient's uterus around the time of ovulation. This makes the journey to the fallopian tubes much shorter, and there is a better chance that more sperm will encounter the egg.

When is IUI helpful?

There are many reasons why couples experience difficulty getting pregnant. IUI may be useful for some of them.

Unexplained causes.

The most common use for IUI is usually when no cause for infertility is found. In addition to IUI, infertile patients usually take medications (by mouth or as an injection) that cause their ovaries to mature several eggs at once. The goal is to increase the chance of pregnancy by putting more sperm in contact with more eggs. vellatur?

Cervical stenonsis or abnormalities.

IUI alone is helpful when a female patient's cervix has scarring that prevents the sperm from entering the uterus from the vagina. This may be seen in patients who have had surgery on their cervix (cryosurgery, cone biopsy, Loop Electrosurgical Excision Procedure [LEEP], etc.). IUI can also assist when a patient has a cervix that is shaped abnormally in a way that prevents the passage of sperm.

Problems with sperm delivery.

IUI alone can also be used when the male partner cannot become or stay erect or has ineffective or absent ejaculation. For example, retrograde ejaculation is when the sperm are released backward into the bladder, instead of through the urethral opening of the penis, at the time of male orgasm. Prior surgeries or medical conditions, such as diabetes, can cause retrograde ejaculation. Also, IUI may help if the male partner has an abnormal urethral opening.

Lack of ovulation (anovulation).

Most of the time female patients who do not release an egg regularly (ovulate) can become pregnant through regular sexual intercourse, but sometimes, IUI may be helpful in addition to medications that cause ovulation.

Fertility preservation.

Male patients may collect and freeze (cryopreserve) their sperm for future use before having a vasectomy, testicular surgery, or radiation/chemotherapy treatment for cancer. The sperm may be thawed later and used for IUI.

Third-party reproduction.

IUI is used when couples use sperm from a separate male. This is called donor insemination (DI). DI is done when the male partner has no sperm or when the sperm quality is so low that sperm cannot be used for conception, and/ or in vitro fertilization is not an option. DI can also be used if the male partner has certain genetic diseases that he does not want to pass on to his children. Female patients without male partners who want to have a baby may also consider DI.

How are sperm collected?

The sperm needed for IUI can be collected in several ways. Most commonly, the male partner masturbates into a sterile glass or plastic cup that

Reproductive Facts

Patient fact sheet developed by the American Society for Reproductive Medicine

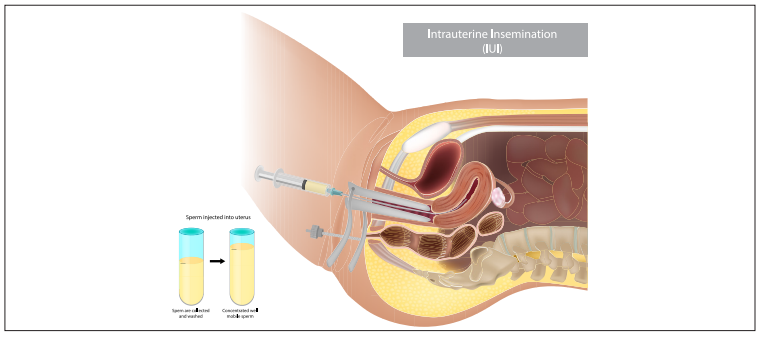
is provided by the doctor's office or andrology laboratory, a laboratory that specializes in dealing with male reproductive h issues. Sperm can also be collected during sex in a special condom that the doctor provides. If a male partner has retrograde ejaculation, the sperm can be retrieved in the laboratory from their urine.

Male partners who have a difficult time with erection or ejaculation despite using medications, as well as those with a spinal cord injury, may be able to produce a sperm sample with the help of vibratory stimulation or electroejaculation. Vibratory stimulation commonly takes place in an office and uses a handheld device that vibrates. Electroejaculation uses electrical stimulation in order to produce a sperm specimen. For male patients with a complete spinal cord injury, electroejaculation is commonly performed in the office, while patients with an incomplete spinal cord injury may have an electroejaculation procedure performed under anesthesia in the operating room. For more information on these procedures, see the ASRM fact sheet titled Surgical sperm retrieval in male patients with spinal cord injury.

How is IUI done?

Once collected, the semen sample is then "washed" in the laboratory to concentrate the sperm and remove the seminal fluid (seminal fluid can cause severe cramping in the female partner). This process can take up to 2 hours to complete.

IUI is performed near the time that the female partner is ovulating. The IUI procedure is relatively simple and only takes a few minutes once the semen sample is ready. The patient lies on an examining table and the clinician inserts a speculum into the vagina to see the cervix. A catheter (narrow tube) is inserted through the cervix into the uterus and the washed semen sample is slowly injected. Usually this procedure is painless, but some female patients have mild cramps. Some may experience spotting for a day or two after the IUI.



Does it work?

The success will vary depending on the underlying cause of infertility. IUI works best in patients with unexplained infertility, female partners with a cervix that limits the passage of sperm, and male partners who are unable to ejaculate effectively. For example, for unexplained infertility, the pregnancy rate with IUI with ovulation medication is double that over no treatment. IUI does not work as well for male partners who produce few sperm or have severe sperm abnormalities .It does not help female partners who have severe fallopian tube disease, moderate to severe endometriosis, or a history of pelvic infections. Other fertility treatments are better for these patients. Overall, if inseminations are performed every month with fresh or frozen sperm, success rates can be better. The success rates depend on whether fertility medications are used, age of the female partner, infertility diagnosis, as well as other factors.

Are there risks?

If a female patient is taking fertility medications to increase the number of eggs for an IUI, the chance of getting pregnant with twins, triplets, or more is greater than not taking fertility medications. Having an IUI does not increase the risk of birth defects. The chance of birth defects in all children is 2% to 4% whether conceived naturally or from IUI. The risk of developing an infection after an IUI is small.

Revised 2021